



# **Mine Detection Dogs**

**67<sup>th</sup> Engineer Detachment (Mine Dogs)**

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# Purpose

1. Provide information on the differences between mine detection and engineer search dogs
2. Identify capabilities, limitations, and TTPs for each type of dog
3. Provide information on the way ahead and resource requirements



# Agenda

- Types of Mine and Explosive Search Dogs
  - Specialized Engineer Search Dogs
  - Mine Detection Dogs
    - Military Dogs
    - Rapid Equipping Force (REF) Dogs
- Program Development
- Resource Requirements



## 3 Types of Engineer Dogs

### Military Mine Detection (MDD) Dog

- Trained to perform military mine detection missions in a hostile environment
- Uses include minefield extractions, area clearance, lane clearance, cave search, and route clearance

### The Specialized Engineer Search (SES) Dog

- Trained to search for Arms, Ammunition, and Explosives in buildings, vehicles and open areas
- Uses include route clearance, vehicle inspections at check points and helicopter landing zone clearance

### “Tactical Demining” Dog (REF)

- Trained for civilian demining operations to UN Humanitarian Demining Dog standards
- Not trained for combat/military environments such as the conduct of combat patrols, cave searches, night operations, convoys, or casualty rescues

**THE OPERATIONAL  
ENVIRONMENT  
DICTATES THE TYPE  
DOG TRAINING  
NEEDED**

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# Specialized Engineer Search



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## Types of Searches

- **Offensive** - These searches are planned to disrupt terrorist operations, to gain points of contact with terrorist organizations and to tie down terrorist manpower in operations to protect their munitions
- **Defensive** - These are intended to provide protection for important installations or terrorist targets or to remove the means the terrorist has acquired for the conduct of operations
- **Deterrent** - These are designed to discourage terrorists from using certain buildings or areas to conceal their munitions by a program of irregularly timed periodic searches



# Detection Requirements for a Search Mission

## The Detector must be:

- reliable & robust
- sensitive
- “user friendly”
- economic





## Search Dog Teams

- **Work “off leash” and out ahead of its handler, minimizing risk to its handler and other soldiers on the mission**
- Can locate both fresh and long term hides (mines and explosives) constructed of a variety of materials
- Are capable of searching all types of urban and rural areas
- Be bold but not aggressive, steady under gunfire
- Have a high degree of public acceptance as it is not attack trained and is a “family friendly” breed





## Search Dog Teams Are:

- Mobile
- Sensitive- Unaffected by CS gas, not distracted by other covering scents such as fuel or disinfectants
- Able to operate in real time
- Able to reduce manpower and increase search speed
- Able to work in most weather conditions



## Search Dog Teams:

- When deployed correctly can and will minimize the risk of life to friendly force personnel
- Show no prejudice toward any situation and is uninfluenced by factors that affect human opinions
- Have a proven track record to deter or locate explosives hazards
- Can be used when other forms of detection fail

The SES team is a powerful aid to search when correctly employed, but is not the ultimate answer to the problem



# SES Dog Working Environments

Dog Teams may be used to search:

- Along Routes, down streets and alleys
- Buildings - occupied and unoccupied
- Airports, railway stations, ports
- Aircraft, vehicles, trains, ships
- Freight storage/transit areas
- Rural environments
- Urban environments
- Fields and yards
- In rubble

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# Search Dog Teams Limitations

- May tire during extended searches (works 40 minutes an hour for about 6 hours)
- May be adversely affected by the search environment
- Performance may decline if the task is repetitive and lacks stimulation
- Search dogs cannot work in voids between walls, under floors, in roof spaces, or in drains
- Limited use for searching persons





# MINE DETECTION DOGS



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# Mine Detection Dog Team Missions

- Minefield Extraction
- Area Clearance
- Route Clearance

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# Military Mine Detection Dogs VS REF Mine Detection Dogs

- Both can perform the same type clearance missions, but under different environments and with different TTPs
  - Military Detection Dogs are trained to work in combat conditions, and are able to do cave clearance and minefield extraction of crashed vehicles and trapped personnel
  - REF Detection Dogs are primarily humanitarian demining dogs and are not trained to work in combat conditions

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# Capabilities

- The MDD will work 7 days a week with a minimum of 6 hours undisturbed rest each day
- The MDD will search for and indicate to its handler the presence of all mines on which it has been trained, both surface laid and buried
- The MDD will increase the speed and efficiency of the mine clearance operation
- It is capable of working in a variety of conditions and terrain both day or night (artificial light required)
- The MDD is mobile and easily transported to and from the task





# Limitations

- It may be limited in its ability to detect mines above 1.20 meters.
- It may suffer a lowering of performance in extreme weather conditions.
- It may be reluctant to negotiate areas that prove physically harmful, for example, thick bramble, unstable rubble/scrap or where there may be broken glass.
- Can tire, go sick, have unexplainable “off days.”
- The MDD’s performance is degraded when tired or when subject to excessive distraction.

**With intelligent handling and use many of these disadvantages can be minimized**



# Work Rates

- There are no set planning factors for mine detection dogs with regard to clearance rates
- Multiple factors affect how the dog works on a daily basis to include:
  - Weather
  - Terrain
  - Distracting Elements
  - Individual Dog Disposition
- Planning factors
  - Clear 50 meters in 30 minutes
  - Works 40 minutes an hour for 6 hours



# Program Update

(1 of 2)

- SES Dog Team Status
  - 3 teams trained, preparing for deployment to CJTF-7 by mid April 04
  - 3 teams scheduled for UK training in Apr 04
- Military Mine Dog Teams
  - 4 teams trained and at FLW
  - 4 teams scheduled for UK training in Apr 04
- REF Mine Dog Teams
  - 7 teams deployed to CJTF 180
  - 6 teams scheduled for training in May 04

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# Program Update

(2 of 2)

- Working to establish SES training facility at FLW
  - Can initiate training by Jul 04 if resources provided
  - Need to construct kennel facility
  - Need to construct classroom
- Activation of Mine Dog Detachment on schedule for Oct 04
- Beginning the process to establish a second detachment in FY 06
- Facility funded for FY 07, but working Congressional add to begin construction in FY 05

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Questions?

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## CONCLUSION

### Mine Detection Dogs

- “Mine detection dogs are the key. They are superb for area reduction and surface clearing. Proofing behind AT flails is no problem...Even if a robotic flail missed a mine/UXO, the dogs would find it.”

LTC Mark Yenter, ACoS, CJ7, CJTF 180



### SES Dogs

- “You and your team did a superb job[SES Demo at FT Hood] and I am sure you will be a value added to any operation we are able to utilize you on... and we'll do all we can to ensure you are linked up with us ASAP[RFF submitted to FORSCOM/DA for 1CD OIF II Deployment]”

COL Kendall P. Cox, CDR,  
ENG BDE, 1CD



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